



SAFETY DATA SHEET

NITOCOTE EP405 HARDENER

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name NITOCOTE EP405 HARDENER

Product number A1754111AE1, A1754117AE1

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Hardener component of two-part protective coating.

1.3. Details of the supplier of the safety data sheet

Supplier Al Gurg Fosroc LLC
PO Box 657
Dubai
United Arab Emirates
+ 971 4 2858606

1.4. Emergency telephone number

Emergency telephone +97142039699 (08:00 to 16:30) // +971506258232 (16:30 to 08:00)GMT+4

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 3 - H412

Human health Contains a substance/a group of substances which may impair fertility. Contains a substance/a group of substances which may damage the unborn child.

Environmental The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

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Precautionary statements	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/ container in accordance with national regulations.
Contains	POLYOXYPROPYLENEDIAMINE, STYRENATED PHENOL, 2-piperazin-1-ylethylamine
Supplementary precautionary statements	P260 Do not breathe vapour/ spray. P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a POISON CENTER/ doctor. P321 Specific treatment (see medical advice on this label). P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P363 Wash contaminated clothing before reuse. P405 Store locked up.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

POLYOXYPROPYLENEDIAMINE			30-60%
CAS number: 9046-10-0			
Classification Skin Corr. 1B - H314 Eye Dam. 1 - H318 Aquatic Chronic 3 - H412			

STYRENATED PHENOL			10-30%
CAS number: 61788-44-1	EC number: 262-975-0	REACH registration number: 01-2119979575-18-XXXX	
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1A - H317 Aquatic Chronic 2 - H411			

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2-piperazin-1-ylethylamine		10-30%
CAS number: 140-31-8	EC number: 205-411-0	REACH registration number: 01-2119471486-30-XXXX
Classification Acute Tox. 4 - H302 Acute Tox. 3 - H311 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air at once. Rinse nose and mouth with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Keep affected person warm and at rest. Get medical attention immediately.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention immediately.
Skin contact	Remove affected person from source of contamination. Rinse immediately with plenty of water. Get medical attention promptly if symptoms occur after washing.
Eye contact	Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

General information	Get medical attention promptly if symptoms occur after washing.
Inhalation	May cause respiratory irritation.
Ingestion	May cause chemical burns in mouth and throat.
Skin contact	Causes burns. May cause an allergic skin reaction.
Eye contact	Causes burns.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
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5.2. Special hazards arising from the substance or mixture

Specific hazards	Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2).
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5.3. Advice for firefighters

Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear appropriate protective Clothing and equipments.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Avoid contamination of ponds or watercourses with washing down water.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Corrosive storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

STYRENATED PHENOL (CAS: 61788-44-1)

DNEL Industry - Dermal; Long term systemic effects: 0.4167 mg/kg/day
Industry - Inhalation; Long term systemic effects: 0.7347 mg/m³

PNEC - Fresh water; 0.001371 mg/l
- marine water; 0.0001371 mg/l
- STP; 1.0638 mg/l

2-piperazin-1-ylethylamine (CAS: 140-31-8)

DNEL Workers - Inhalation; Long term systemic effects: 3.6 mg/m³
Workers - Inhalation; Short term systemic effects: 21.4 mg/m³
Workers - Dermal; Long term systemic effects: 3.3 mg/kg/day
Workers - Dermal; Short term systemic effects: 20 mg/kg/day

PNEC - Fresh water; 0.0058 mg/l
- marine water; 0.58 mg/l

8.2. Exposure controls

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Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles.

Hand protection

Wear protective gloves made of the following material: Nitrile rubber. Viton rubber (fluoro rubber). Polyvinylidene chloride/polyethylene (PVDC/PE).

Other skin and body protection

Wear appropriate clothing to prevent skin contamination. Provide eyewash station.

Hygiene measures

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes wet or contaminated.

Respiratory protection

Use approved respirator if air contamination is above an acceptable level. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Combination filter, type A2/P2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Yellow.
Odour	Amine.
Odour threshold	Not determined.
pH	pH (concentrated solution): 9
Melting point	Not applicable.
Initial boiling point and range	Not determined.
Flash point	>100°C
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Other flammability	Not applicable.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	1.0 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Immiscible with water.

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Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	No data available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The following materials may react with the product: Acids. Oxidising agents. Peroxides.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Will not polymerise.
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10.4. Conditions to avoid

Conditions to avoid	The following materials may react violently with the product: Strong oxidising agents.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Very toxic gases or vapours.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg)	5,000.0
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Acute toxicity - dermal

ATE dermal (mg/kg)	8,660.0
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Inhalation	May cause respiratory system irritation.
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Ingestion	Causes burns. May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.
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Skin contact	May cause allergic contact eczema. Product has a defatting effect on skin. Causes burns.
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Eye contact	Severe irritation, burning and tearing. Causes burns.
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Toxicological information on ingredients.

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POLYOXYPROPYLENEDIAMINE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 475 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ 2090 mg/kg, Dermal, Rabbit NOAEL 40 mg/kg/day, (subchronic), Dermal, NOAEL 1000 mg/kg/day, (subacute), Dermal,

Acute toxicity - inhalation

Notes (inhalation LC₅₀) NOAEL 790 ppm, (subacute), Inhalative,

STYRENATED PHENOL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,000.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rat

2-piperazin-1-ylethylamine

Acute toxicity - oral

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 866.0

Species Rabbit

ATE dermal (mg/kg) 866.0

Germ cell mutagenicity

Genotoxicity - in vivo Ames test: Negative.

Reproductive toxicity

Reproductive toxicity - fertility Fertility - NOAEL 150 mg/kg/day, Oral, Rabbit

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 53.5 mg/m³, Inhalation, Rat

Target organs Respiratory system, lungs

SECTION 12: Ecological information

Ecotoxicity The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Toxicity The product contains a substance which is harmful to aquatic organisms.

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Ecological information on ingredients.

POLYOXYPROPYLENEDIAMINE

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: >100 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 15 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC ₅₀ , 72 hours: 135 mg/l, Algae

STYRENATED PHENOL

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 14.8 mg/l,
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 1-10 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 3.14 mg/l, Scenedesmus subspicatus

2-piperazin-1-ylethylamine

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: >100 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 58 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: > 300 mg/l, Freshwater algae

12.2. Persistence and degradability

Persistence and degradability Not readily biodegradable.

Ecological information on ingredients.

2-piperazin-1-ylethylamine

Persistence and degradability	The product is not readily biodegradable.
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12.3. Bioaccumulative potential

Partition coefficient	Not determined.
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Ecological information on ingredients.

2-piperazin-1-ylethylamine

Partition coefficient	log Pow: -1.48
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12.4. Mobility in soil

Mobility	The product is immiscible with water and will spread on the water surface.
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12.5. Results of PBT and vPvB assessment

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Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 2735

UN No. (IMDG) 2735

UN No. (ICAO) 2735

UN No. (ADN) 2735

14.2. UN proper shipping name

Proper shipping name (ADR/RID) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS POLYOXYPROPYLENEDIAMINE, 2-piperazin-1-ylethylamine)

Proper shipping name (IMDG) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS POLYOXYPROPYLENEDIAMINE, 2-piperazin-1-ylethylamine)

Proper shipping name (ICAO) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS POLYOXYPROPYLENEDIAMINE, 2-piperazin-1-ylethylamine)

Proper shipping name (ADN) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS POLYOXYPROPYLENEDIAMINE, 2-piperazin-1-ylethylamine)

14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID classification code C7

ADR/RID label 8

IMDG class 8

ICAO class/division 8

ADN class 8

Transport labels



14.4. Packing group

ADR/RID packing group II

IMDG packing group II

ICAO packing group II

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ADN packing group II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

IMDG Code segregation group 18. Alkalis

EmS F-A, S-B

ADR transport category 2

Emergency Action Code 2X

Hazard Identification Number (ADR/RID) 80

Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information Only trained personnel should use this material.

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 12/05/2022

Revision 5a

Supersedes date 10/12/2019

Hazard statements in full
 H302 Harmful if swallowed.
 H311 Toxic in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

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This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.